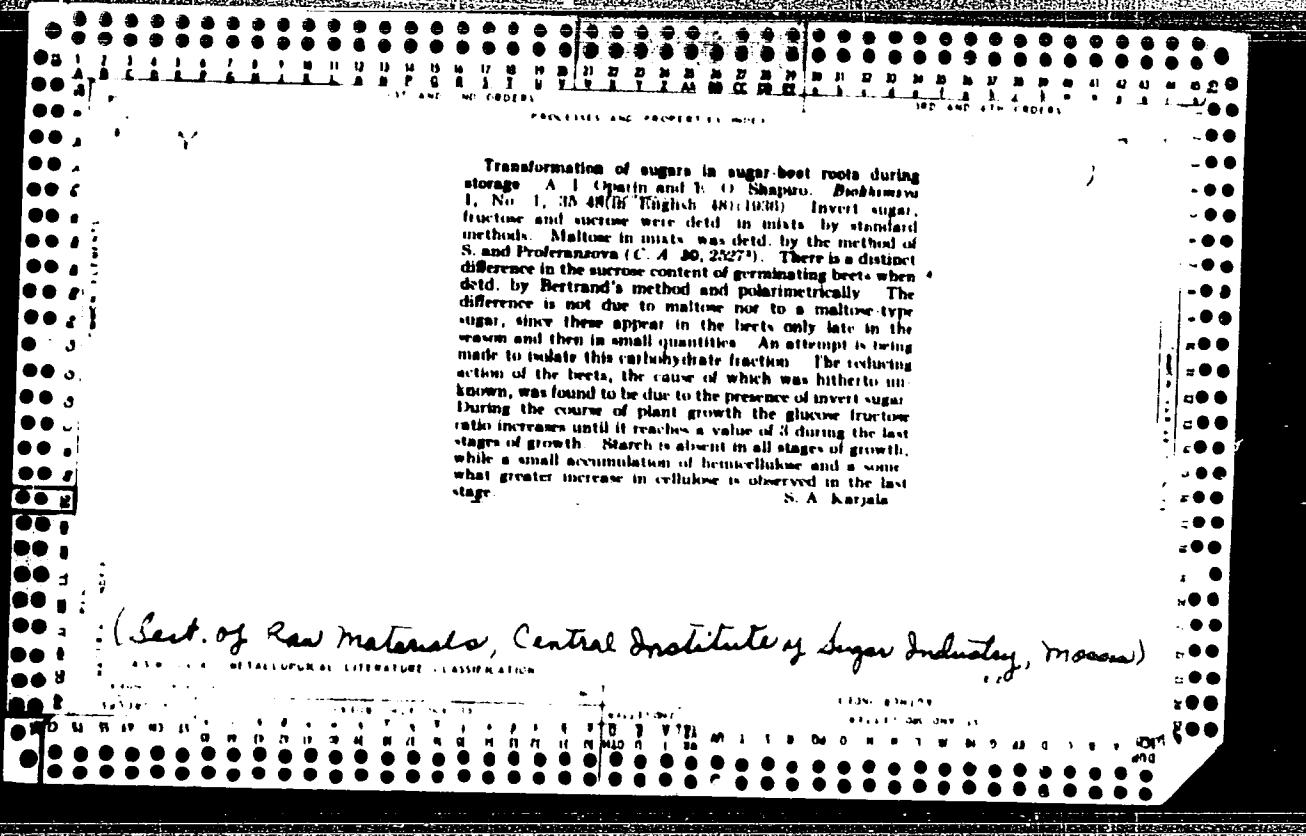


Action of enzymes in the living cell A. I. Oparin.
Uspenskii Khim 3, 260 (1940); cf. C. A. 38, 4437.
A review especially of O's own work covering changes
in activity of enzymes by activators and inhibitors, re-
activation of enzymes inactivated by adsorption, and the
presence of excess stored enzymes in the cell E. H. R.

AMERICAN RESEARCH LITERATURE CLASSIFICATION

Preserving beets by freezing. A. I. Uspenskii, N. N. D'yachkov, M. I. Kamenetskaya and V. P. Balashov. *Vsesoyuznyi Nauchno-Issledovatel'skiy i Proektirovaniyeyi Tsentr po Sredstvam Radioelektroniki i Radioelektronnoy Promstsi*. Research Inst. Sugar Ind. (U.S.S.R.) No. 16, 8-01 (1954).—Frozen beets, piled up and covered by some thermal insulator, may develop an increase in temp. because of the latent heat which is produced when the capillary water in roots is frozen and because of the breathing of cells not destroyed by frost. This is avoided when complete freezing is obtained by a temp. of -12°. All biochemical processes are stopped in completely frozen beets and it is possible to preserve the roots at this low temp. without destruction of sugar. At -3.5°, the ice inside of the frozen beet starts to melt and this produces a favorable condition for fermentation and in particular for invertase activity, which results in rapid inversion of sugar.

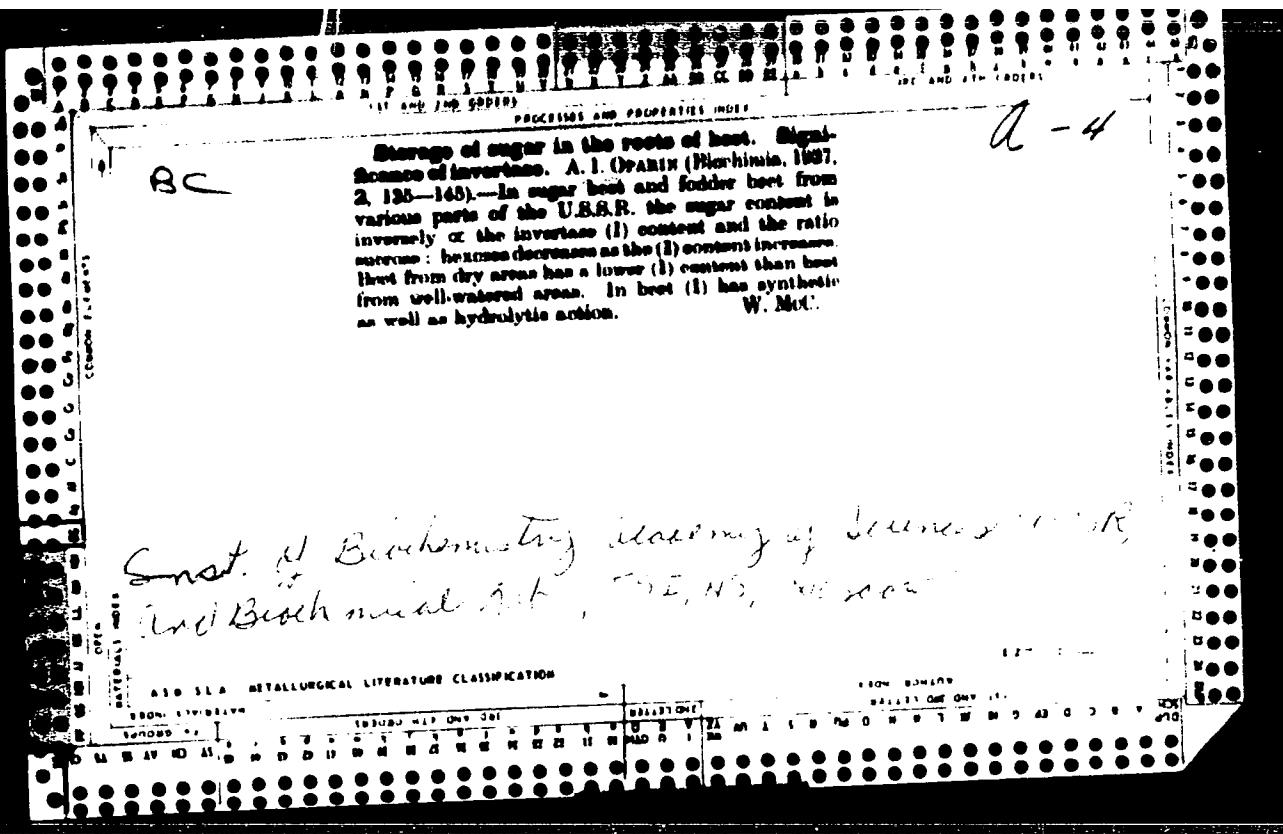
APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381

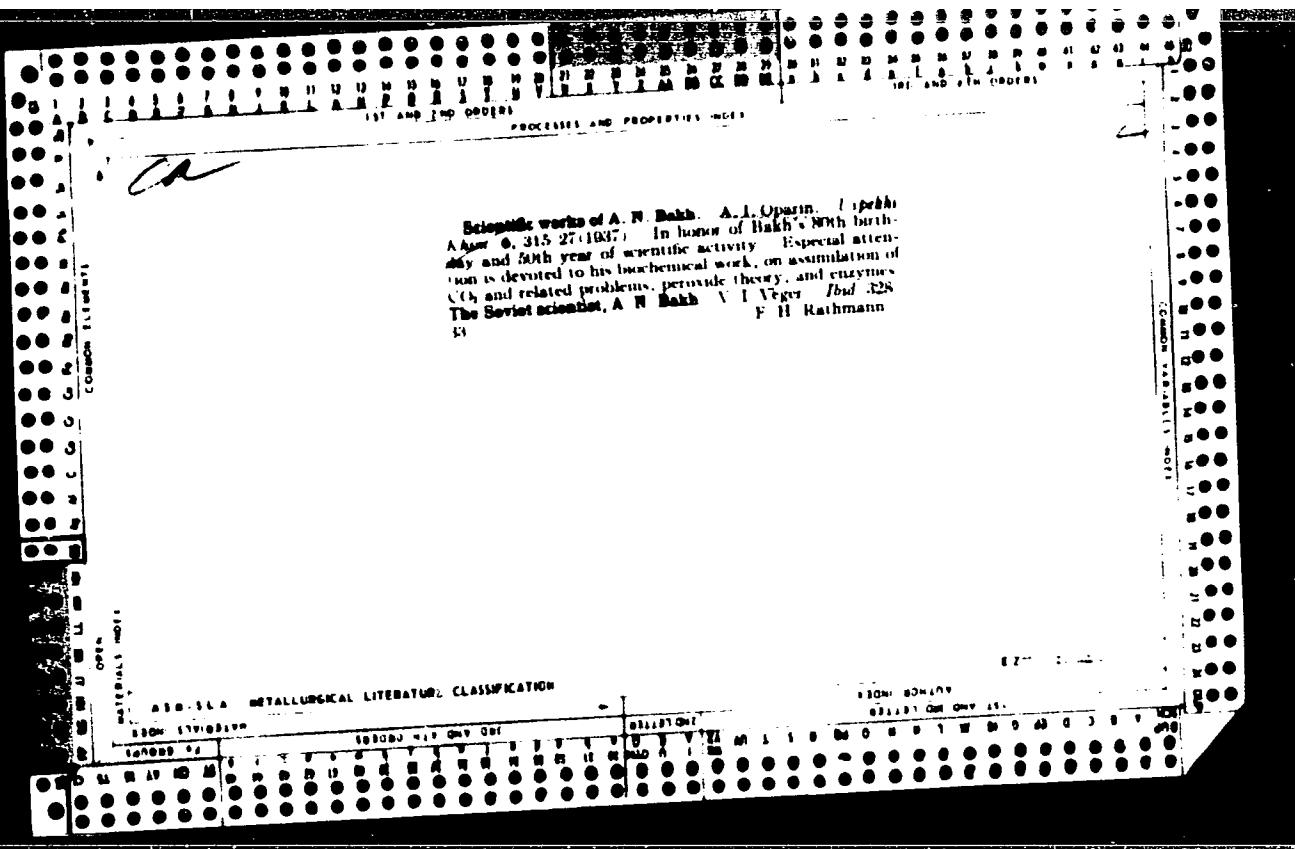


The biochemical basis of tea production A. I. Oparin
Soviet. Substrats 10, 16-25 (1930); *Chimie & Industrie* 37, 101.
 The color of tea depends not only on its tannin content, but also on the presence in the infusion of a corresponding amount of the degradation products of albumen. Though the oxidation of tannin is essentially a biochemical process resulting from the action of an enzyme (peroxidase), it takes place at the required velocity only provided a considerable quantity of the degradation products of protein has accumulated during the drying of the leaves. Lowering of the temp. of fermentation of tea leaves creates conditions favorable to obtaining high-grade tea.

ASD SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381





AND THE PROPERTY INDEX

12

Biochemical indexes of the baking quality of grain and flour. A. A. Oparin. Bull. Acad. Sci. U. R. S. S., Ser. Biol. 1939, 43-67 (in English, 67-70). The baking quality of flour depends not only on its initial chem. compn but also on the rate at which the chem. processes, determined by the amt. and activity of the enzymes contained in the flour and by the susceptibility of the substances in the flour to fermentative action, take place in the dough during mixing, fermentation and beginning of baking. John Livak

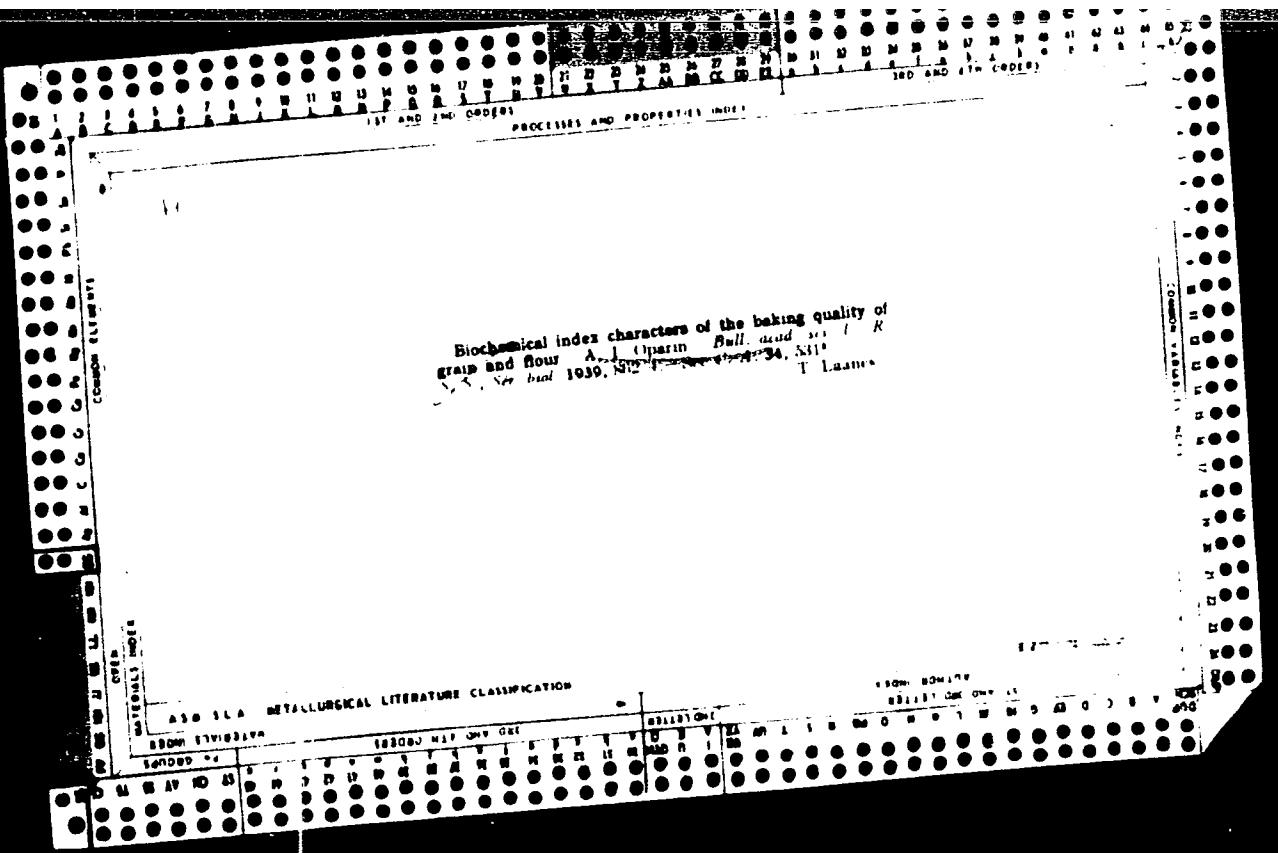
John L. Ivah

ca

EDUCATIONAL LITERATURE CLASSIFICATION

1200 BONDY

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381



SPARKS, A. L.

"Origin of Life on the Earth," Lecture Series, 1950-1951

Report U-1619, Part 1

OFARIN, A. I.

"The emergence of life on the earth," (Vozniknoveniye Zhizni na Zemle) 1941.

2nd edition.

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001238

A. H. Bush's extensive work. A. I. Oregan and S. M. Shashkin
(*J. Phys. Chem. Russ.*, 1961, **10**, 697-707). A review. R.C.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381

DPAKIN, V. I.

Sovr. Nauk Akad. SSSR, "V. I. V. Dzerzhinskii" i. m. Institut
Ak. Nauk SSSR, No. 1, 1951.

Report U-1662, 24 Jan., 1951.

Preparation of tea concentrate from rough tea leaves.
A. J. Upadhye, *Bhadravati*, *P.W.D.* 10(1941).—The green tea leaves which are cut in the spring from the tea bush have hitherto been discarded. A satisfactory oil tea is obtained by subjecting the *o.s. cut* of the rough tea leaves to 7 hrs. "fermentation" at 50° in the presence of a Mn salt as a catalyst (0.05% of K_2MnO_4) by *w/v* of dry concentrate). The tea extract thus obtained contains the same quantity of tannins and caffeine as an extract from high-grade com-tea. H. Priestley

Lab. Plant Biochemistry, Moscow State Univ. im M. V. Lomonosova

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381

OPKAT, Aleksandr Ivanovich. 1934-

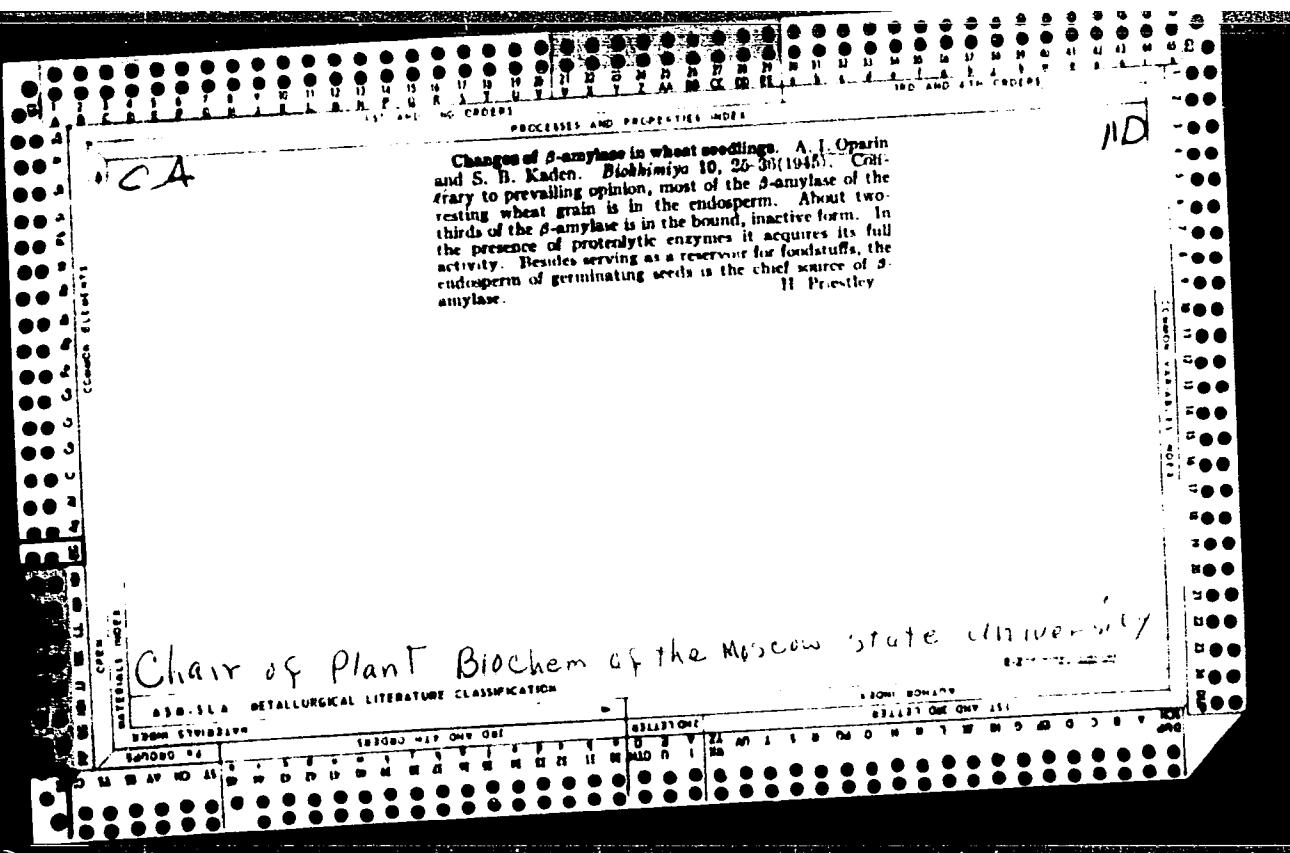
The artist of life. [opkata. N. Ivanovich. 1934-1988, 1988. 164 p.
G1-181]

Био. 181

OFAST , Aleksandr Ivanovich, 1894- Ilk vypislo zjedtia.

Was there a certain and will there be another? (Kharkiv)kharkivs'ke
knjishkovo-zhurnal'no-kartino-zdanie, 1916. 27 p. (Seriya Nauk po-povilarnym
lektsii) (1-3944)

4B/1.8

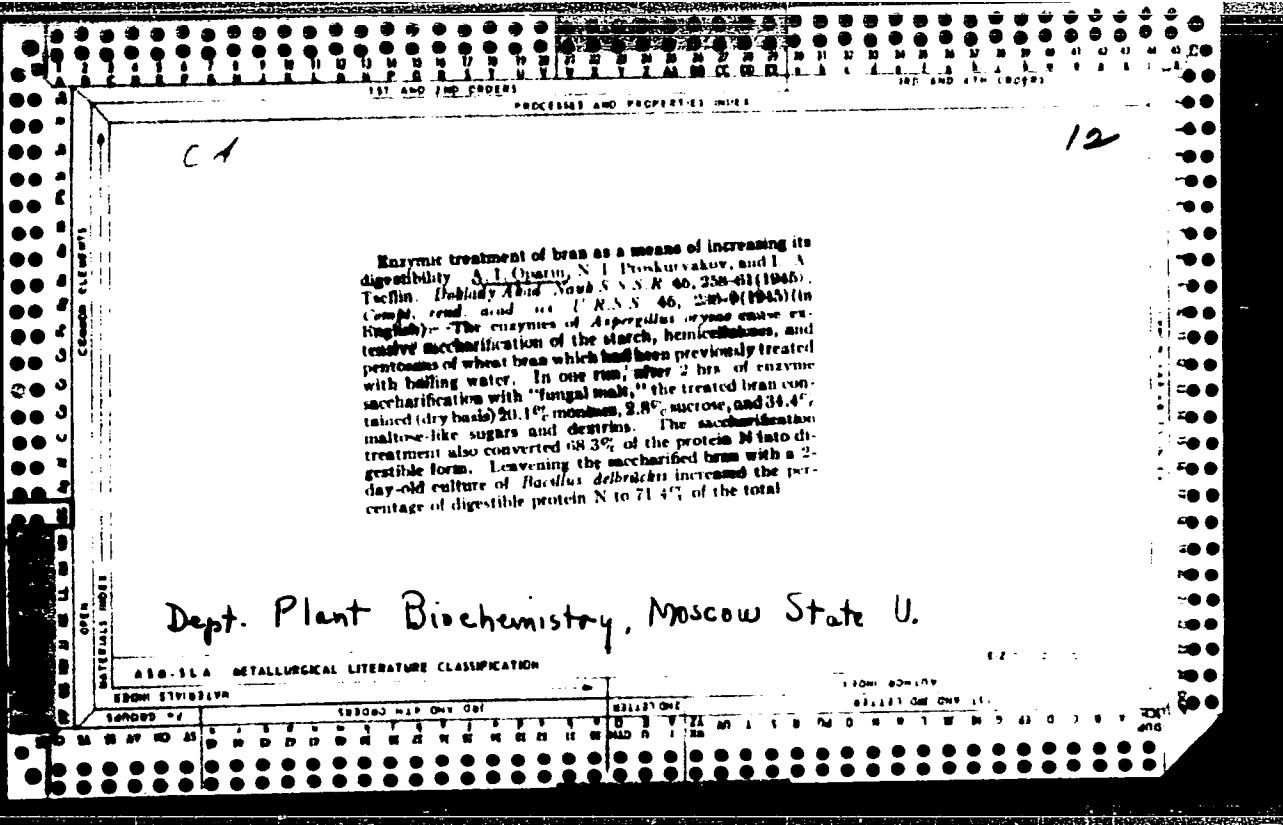


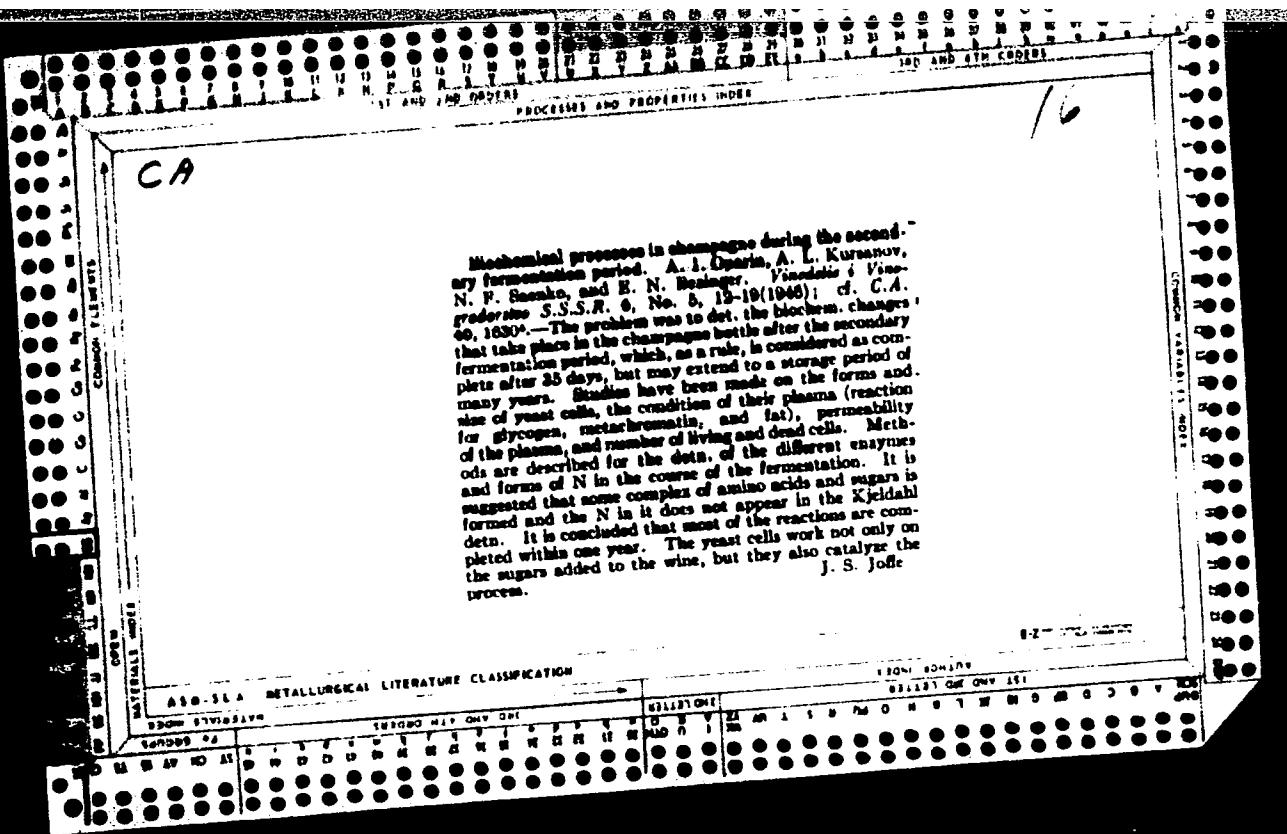
PRINCIPLES AND PRACTICES UNIT

Transformation of nitrogenous substances in champagne during processing. A. Oparin, B. Beslager, and I. Babynska (Inst Moscow Univ.). *Biochimika* 10, 311-325 (1945).—Champagne fermentation is rapid only during the first 20-30 days; on the 110-120th day, all the cells are dead. However, the champagne along with the dead yeast cells is stored another 3 years. These added yeasts are a source of enzymes and only 5% of the N is furnished by the yeast; 95% comes from the wine. It is these N substances from the wine that undergo the transformation. At the beginning, about half of the N present in the wine is not ppdL, by tannin, and is also not determinable by the Van Slyke method. The nature of these N substances is unknown. Most of the N transformations are at the expense of these unknown substances. As the fermentation proceeds, there is an increase of amino N and N bases. Between the 110th and 250th day of fermentation, the total N as detd. by the Kjeldahl method drops sharply. Towards the 370th day, the total N again reaches normal. Apparently, N compds. of unknown structure were formed, which escaped detection by the Kjeldahl method. After 300-350 days, the proteases are practically inactive, and no more changes in the N substances are observed. H. Pitcairn

Chair Plant Biochemistry.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381





Oparin, A., GULMAN, N.

Chimie Biologique
Oparin,- Corresponding Member of the Academy.
"Formation of Purin Bases in Germinating Wheat Seeds"
Comptes Rendus (Doklady) Vol. LIV, No. 1, 1946

A. I. OPARIN (Academician)

"Enzymes in the Life Cycle of Plants" (article from a two-volume Russian publication, Jubilee Symposium of the Academy of Sciences USSR, dedicated to the Thirtieth Anniversary of the Great October Socialist Revolution, published by the Academy of Sciences in 1947.

dis

During the entire life cycle of plants, enzymes play a definite rhythm in their activity in the different organs of a plant. These rhythms make up the daily, seasonal, growth, and the phase changes of direction of the fermentative processes. Basically, they take place automatically, but many external actions can show a strong influence on the character and sequence of these changes, which produce further changes and physiological activity.

The fermentative phenomena connected with the course of growth in the life cycle depend directly upon structural changes of the protoplasm and, primarily, upon changes in its adsorptive property. These structures themselves are created or developed together with the results of the fermentative processes. Thus, we have here the speed and sequence of fermentative reactions closed circle of a phenomenon: the organization in time, i. e. speed and sequence of fermentative reactions, determines the organization and expanse, i. e., the structure of the protoplasm, and this, in its turn, determines the organization of the numerous fermentative reactions in time.

It is completely natural that this closed cycle is formed historically in the process ~~and~~ of genesis and growth of life. We have already learned to understand the individual tendencies of this organization. The future presents the great and interesting task of learning to influence the course and sequence of fermentative reactions in living plants artificially, in order to obtain in this way the possibility of arbitrarily directing the course of the life process to our needs and obtaining plants which have valuable agricultural properties. (Results of research conducted by the author on the subject are presented). S8,26 Apr 1948, pp35-36

OPARIN, A.I., akademik.

Foreword. Biokhim.vin. no.1:3-8 '47. (MLRA 7:10)
(Wine and wine making)

OPUSCO, A. L. AND YUENGIN T. H. C.

"Formation of Maltose During the Action of Phosducylase on Amorphous Glucosidase I Phosphate," Dok. Akad. Nauk SSSR, 1967, 202, 1077

OPARIN, A.I.; KURSANOV, A.L.; SAYENKO, N.P.; BESINGER, E.N.

Biochemical processes in champagne during bottle aging [in Russian with English summary]. Biokhim.vin. no.1:134-157 '47. (MIRA 7:10)

1. Kafedra biokhimii rastenii Moskovskogo gosudarstvennogo universiteta imeni Lomonosova.
(Champagne (Wine))

OPARIN, A. I.

USSR/Chemistry - Biographies
Academy of Sciences

May 47

"Aleksey Nikolayevich Bakh, His Life, and Achievements (1857 - 1946)," S. I. Vol'fkovich, A. I. Oparin, 7 pp

"Zhurnal Obshchey Khimii" Vol XVI], No 5

Summary of the life and work of Academician A. N. Bakh [Bach], noted pioneer in the field of Soviet scientific and research work.

PA 30T4

OPARIN, A. I.

PA4OT37

USSR/Medicine - Chemistry
Medicine - Plants

Sep/Oct 1947

"Plant Biochemistry in the Soviet Union for Thirty Years," A. I. Oparin, N. M. Sisakyan, Moscow, 10 pp

"Uspekhi Sovremennoy Biologii" Vol. XXIV, No 2 (5)

Historical development of the science of plant biochemistry in Soviet Union for the first 30 years of Soviet rule. Discusses some of the more important institutes connected with this development, and mentions names of more important contributing scientists.

LC

4OT37

CHALIN A. I.

11-17-5

Medicine - Albumin
Medicine - Heat Effects Oct 1947

"Effect of Nucleic Acid on the Thermal Stability of
Albumin," Acad A. I. Oparin, T. N. Evreinova, 24 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 2

Most living organisms maintain temperature not in
excess of 45° C. Coagulation of albumin isolated
from these organisms occurs at 60° C. Object of
reported experiments to explain the action of the
albumin of thermophilic bacteria during heat treat-
ment. Submitted, 11 Jul 1947.

b9758

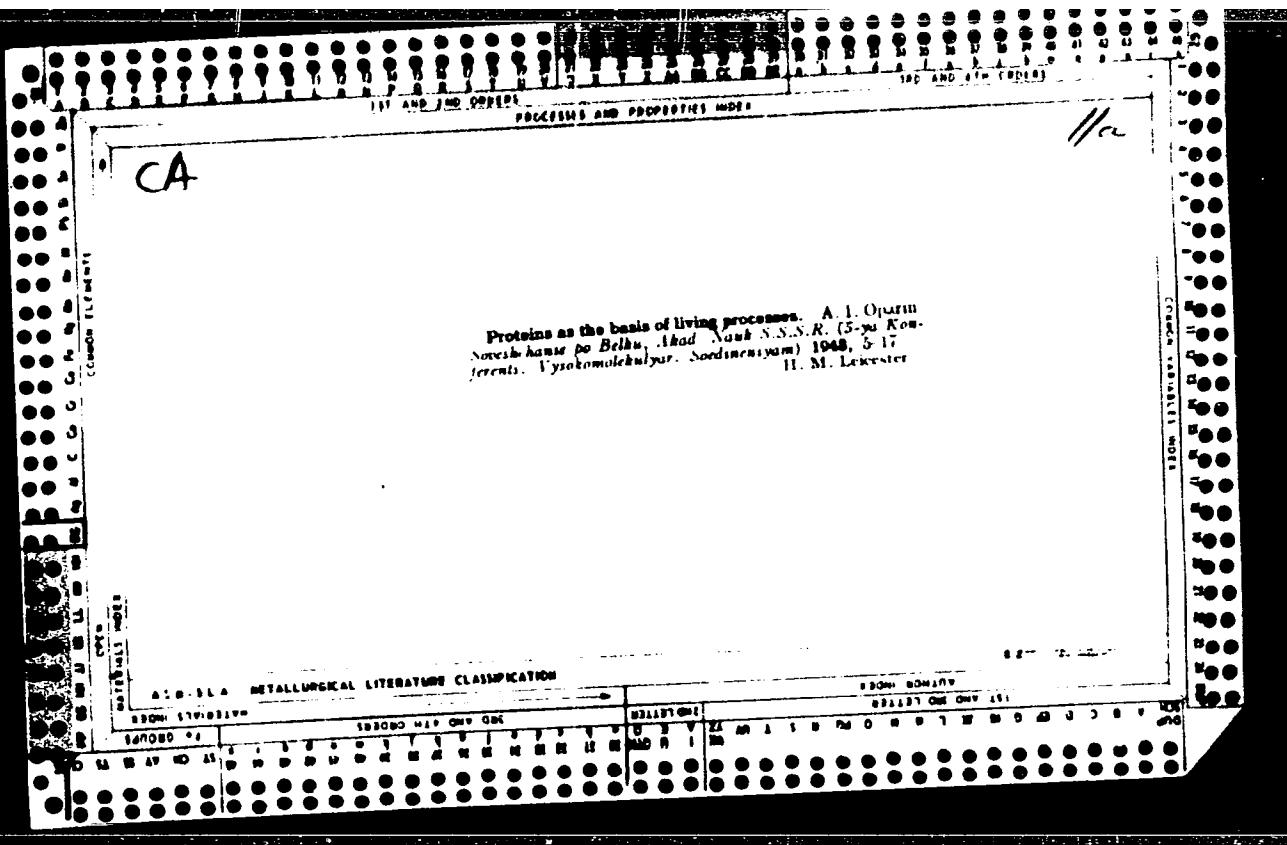
"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001238

OPARIN, A. I., AND YEVREINOVA, T. N.

USSR

"Formation of Maltose During the Action of Phosphorylase and Amylase on Glucose 1 Phosphate," Dok. AN, 58, No. 8, 1947

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381



OPARIN, A.I., akademik; SISAKYAN, N.M., professor.

Foreword. Biokhim.vin. no.2:3-5 '48. (MLRA 7:10)
(Wine and wine making)

Oparin, A. I.

PA 28/49764

USSR/Medicine - Plants
Medicine - Metabolism

Mar/Apr 48

"Problem of Metabolism of Plants at the Fourth All-Union Botanical Convention," A. I. Oparin, V. I. Kretovich, 1½ pp

"Botan Zhur" No 2

Describes reports of such famous scientists as Bakh, Tsvet, Palladin, and Pryanishnikov. Urges that reports submitted at coming conference bear on subject of the material exchange in the plant cell. States that solution of this problem has much practical and theoretical significance as it will

28/49764

USSR/Medicine - Plants (Contd)

Mar/Apr 48

answer questions on biochemistry of the plant cell and reproductive activity of plants.

28/49764

Oparin, A.I.

7/13/00

USSR/Academy of Sciences
Medicine - Heredity, Mechanism

1948

"Report of Academician A. I. Oparin, Deputy Academician-Secretary, Department of Biological Sciences"
6 pp

"Vest Ak Nauk SSSR" No 9

Praises Lysenko's speech. States that he himself has been keen Michurinist for some time, and has thus incurred hostility of Mendelists. Calls for cleanup in Academy.

LC

23/49T11

(A)

(E)

The formation of maltose by the action of phosphorylase and amylase on glucose-1-phosphate. A. I. Oparin and T. N. Evreinova. *Melior. Traktör.* 29, 210-12 (1949). Chem. Zent. (Russian Zone Ed.) 1948, II, 1000.—A study was made of the simultaneous action of the 2 enzymes, phosphorylase (I) and amylase (II), on the crystallized potassium salt of glucose-1-phosphate (III) in homogeneous soil. I was prep'd. from potatoes by the method of Kunitz and Ivanov (cf. C.A. 39, 3560^a; 40, 6822^b) and II was obtained from soybeans by the method of Laufer, Tammer, and Davis (cf. C.A. 38, 5069^c). The action of I was measured by the amt. of inorg. P split off, according to the method of Blake and Subbarow (cf. C.A. 24, 329). The action of the β -II was measured on the basis of the sol. starch by detn. of the reducing substances according to Bjerrum. The procedure used was as follows: 30-40 mg. III, 1 cc. I, 10 mg. β -II, 2 mg. starch, and 15 cc. of a buffer soln. of pH 6 (1/10 M with respect to acetate and 0.1 N with respect to NaF) were mixed at 20-22°. After 1 hr. inorg. P was detd. Maltose was also detd. from the difference in the amt. of reducing substances present in a sample of the mixt. before and after boiling 15 min. with 2% HCl. The decompos. of III, obtained from the maltose and P values, was 60-70%. The following representation of the reaction is offered: glucose-1-phosphate $\xrightarrow{\text{phosphorylase}}$ polysaccharide $\xrightarrow{\text{amylase}}$ maltose
M. G. Moore

C 4

11D

Direction of enzyme action and the influence of vernalization on it. A. I. Oparin and V. A. Zenchenko (M. V. Lomonosov State Univ., Moscow). *Problemy Biokhimi i Molekulyarnoi Biol. Akad. Nauk SSSR*, Sbornik, No. 1, 81-91 (1949). Young sprouts of winter wheat show greater synthetic activity of carbohydrate enzymes (anerose formation) than do corresponding sprouts of summer wheat. Vernalization shifts the direction toward the hydrolytic action in winter wheat and brings it into closer correspondence to the behavior of summer varieties. While enzyme synthetic activity in wheat-quack grass hybrids is higher than it is in the corresponding winter or summer varieties of parent wheat, vernalization of the winter varieties leaves a higher level of synthetic activity than is found in corresponding wheat specimens. G. M. Kosolapoff

"APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R001238

1000, 1986.

1000, 1986. A copy of the document was sent to the FBI, Washington, D.C., on June 21, 1986.

LC: [unclear] Atlanta 21 (1986) 1000, 1986.

APPROVED FOR RELEASE: Tuesday, August 01, 2000 CIA-RDP86-00513R0012381

OPARIN , A.I.

"Science and Its Struggle to Maintain Peace"
Vest. Ak. Nauk SSSR, No. 4, 1949. Mbr. Acad. Sci., -cl949-.

Bo.

H-UL

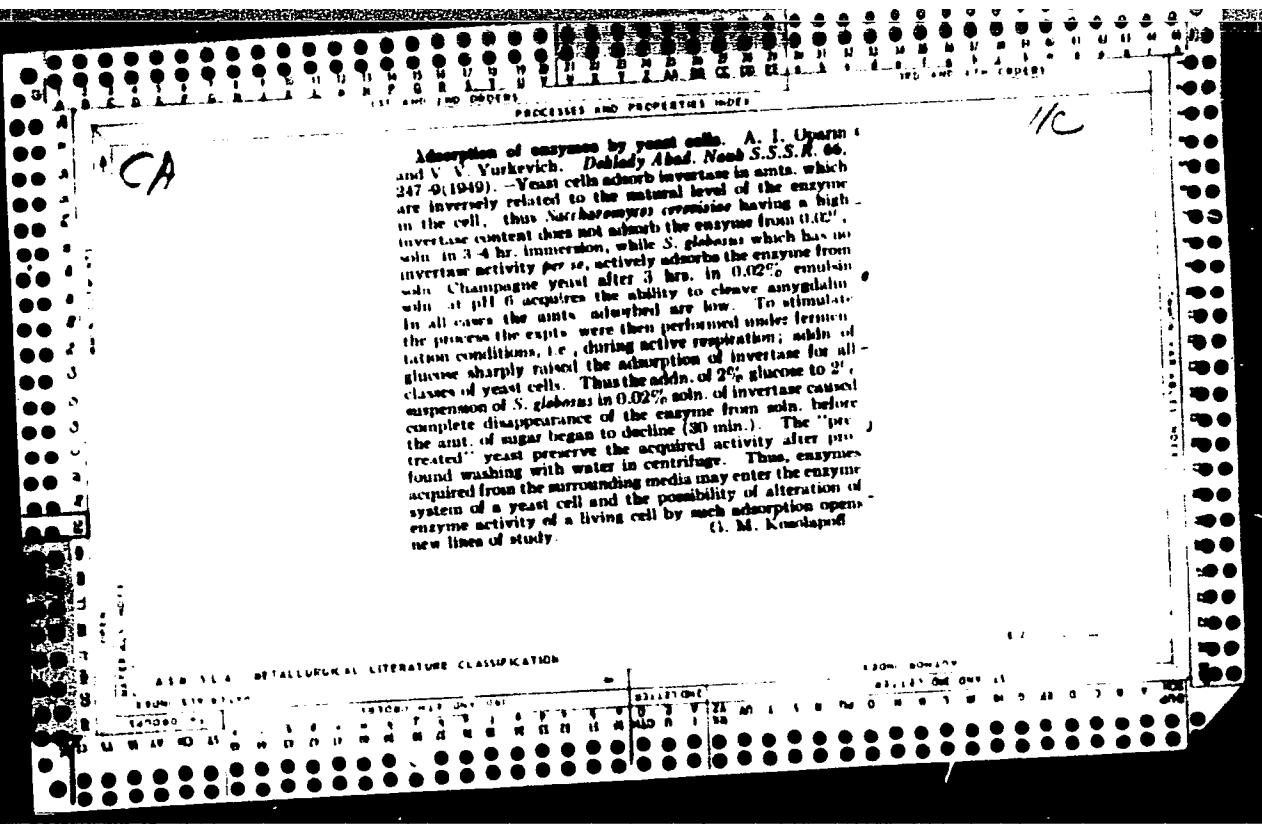
Microscopic substances in wine. I. High-molecular nitrogenous substances in champagne. A. I. Oparin and K. N. Bruegger (*Biochimia*, 1949, 14, 391-398).—Champagne was concentrated in vac. at 35°. The dialysed concentrate was then precipitated with alcohol at 35°. The ppt. contained 1.6% of N (corresponding to 9.4 mg. of N per l.). It is negative to Millon's, xanthoproteic, and bauret tests. Amine-N is present (~0.17%), but this is not increased by digestion with pancreatin enzyme. Carbohydrate is present and reducing substances (calculated as glucose) formed 4.7%, and, after 3-hr hydrolysis with 20% HCl on a boiling water-bath, formed 35%. The possible origin of these substances is discussed. D. H. Smith

Chair Plant Biochemistry, Moscow State Univ. im M. V. Lomonosov

OPARIN, A.I.

"The Progress of Soviet Biology In The Stalin Era." (p.321) by A.I. Oparin (Moscow)

SO: Progress of Contemporary Biology (Usp. Sovrem. Biol.) Vol. XXVIII, 1949, No. 3
(6) (Nov.-Dec.)



OPARIN, A. I.

Progress of Soviet biology. Vest. Akad. nauk SSSR. No. 1, 1950.
p. 97-9

CLIL 19, 5, Nov., 1950

CERN, ... i.

"Science of Religion on the Origin of Life on Earth."
Current literature of the Soviet press, vol. 2, No. 5, 1956, page 46.

OPARIN, A. I. NOVINSKIY, I. I.

Biology

"I. V. Stalin - the Great Builder of Soviet Science"

Brookhaven Guide, Vol 3, No 9, 1950

11D

CA

Oxidative respiratory systems of the tea leaf. A. I. Oparin and T. A. Shubert. *Nihonjiyu Chikago Prezidenta, Sbornik No. 6, 82-10(1950).*—Spectroscopic and gasometric methods failed to reveal the presence of any cytochrome oxidase in Georgia tea leaf. Suspensions of such leaves in H₂O can oxidize hydroquinone but less vigorously than they attack pyrocatechol or other *o*-phenols. Tyrosine enzymes are also absent. Absorption of O₂ by the leaf is completely repressed by CN⁻, showing that the terminal phase of respiration is done wholly by the polyphenoloxidase G. M. Kosolapoff

CA

1

Chemical investigation of plants in the eighteenth
century in Russia. A. I. Oparin, N. M. Shchukin, and
N. B. Gel'man. *Biokhimiya* 18, 291-6 (1930).—Histori-
cal. H. Priestley

Info. Not Listed

OPARIN, A. I., Academician

"On Noncellular Forms of Life and the Origin of Cells"

(about the results of the conference and discussion in the Department of
Biological Sciences, USSR Academy of Sciences)

Vestnik Akademii Nauk SSSR, Vol 20, No 7, pp119-122, July 1950
Trans 290 by L. Lulich

OPARIN, A.I.; SHUBERT, T.A.

Respiratory oxidative systems in tea leaves. Biokhim.chain.preizv.
no.6:82-89 '50. (MLRA 9:7)
(Tea) (Phenolases)

, Aleksandr Ivanovich, 1 Bl-

The first session of the working group. Moscow, January 19, 1951.
(12-4046)

JX1907.4676

Bolany 11-0

CA

Comparative characteristics of respiratory enzymes of sprouts of rice and wheat. A. I. Oparin and N. S. Gel'man (A. N. Bakr Biochem. Inst., Moscow); *Zhokhovaya Zemlja, Akad. Nauk SSSR, Sbornik 1, 7-18 (1951)*. The respiration of sprouts and rootlets as well as the rate of oxidation of aq exits from them is more intense in wheat than in rice. While the reductive enzymes of these plants are comparable in live tissues, there are differences that appear upon destruction of the tissues. The activity of wheat dehydrogenase is suppressed more than is that of rice, which can be explained by the absence

sense of tannins in rice. Both plants contain dehydrogenases of glutamic and succinic acids. The oxidative system of rice contains the cytochrome cytochrome oxidase system which is much more active than is that of wheat. The adaptation of rice sprouts to lowered concn. of O_2 in the atm. can be explained by the higher activity of metal-containing systems of the cytochrome type, which under such unfavorable conditions can bind the necessary quantities of atm. O_2

G. M. Kosolapoff

OPARIN, A.L.

Life. Zh. obsh. biol., Moskva 12 no.6:369-393 Nov-Dec 51. (CLML 21:4)

1. Article written for the second edition of the Great Soviet Encyclopedia ("Zhizn"--"Life")

OTARYN, A. I.

Stalin, Iosif, 1879-

Importance of I. V. Stalin's brilliant works in linguistics for the creative development of Soviet biology., Izv. AN SSSR. Ser. Biol., no. 6, 1951

9. Monthly List of Russian Accessions, Library of Congress, March ² ~~1955~~, Uncl.

CFARTH, A. T.

Life (Field w)

Life., Zhar. ot. biol., 12, no. 4, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March 1952, Unclassified

OPARIN, A.I.; KRISS, A.Ye.

Method of electron microscopy in biology. Vest. Akad. nauk
SSSR 21 no.6:64-70 June 1951.
(CIML 21:11)

1. Academician Oparin; Prof. Kriss. 2. Achievements of the
Laboratory of Electron Microscopy, Division of Biological
Sciences, Academy of Sciences USSR.

Summary - W-21542, 25 Feb 52

OPARIN, N. I.

"Against Reactionary Mendelism and Morganism" Collection of Articles edited by:
M. B. Mitin, N. I. Nuzhdin, A. I. Oparin, N. M. Sisakyan, V. N. Stoletov.
Publishing House of the Akad. Nauk, USSR, Moscow-Leningrad, 1950, 350 pp.
Rev. by M. F. Nikitenko.

SO: Progress of Contemporary Biology, Vol. 32, 1951, No. 3 (6)

14 100,

... the only visible irregularities are
proteins in the matrix, an irregular form; confluence of
proteins) but it is physiologically identical with the intestine;
conformation is beta-D. See Fig. 1.
retrovirus in the lysosomes of the XVI, XVII and XII
and XIII, 13. 6. 91.

SA

OPARIN, A. I.

"Changes in the Action of Enzymes in a Plant Cell Under the Influence of
Outside Agents," Moscow, 1952

OP-311, 101.

SP
101

POLITICAL INFORMATION, 1970, 1971, 1972, 1973, 1974, 1975,
YU. M. TIKHONOV, PREDSTAVITEL RASSKAZA V SSSR

OPARTIN, A. I.

Dialectical Materialism

Life., Est. v shkole., No. 1, 1962.

9. Monthly List of Russian Accessions, Library of Congress, April 1952, Unci.

1. OPARIN, A. I.
 2. USSR (600)
 4. Darwin, Charles Robert, 1809-1882
 7. Introduction by Academician A. I. Oparin.
Izv. AN SSSR. Ser. biol. no. 3, 1952
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

OPARIN, A.I.

APR 52

"Origin of Life," Acad A. I. Oparin
"Priroda" No 4, pp 7-16

Outlines his well-known chem theory of the origin of life starting with the formation of hydrocarbons on the surface of the earth. Points out the role of coacervates in the formation of organisms from org matter and the similarity between coacervates and noncellular living beings. Discusses O. B. Lopushinskaya's theory of the formation of cells from noncellular matter. States that recent suc-

215T8

cesses of USSR biology give rise to the hope that artificial creation of life may become possible in a not-too-distant future.

215T8

cesses of USSR biology give rise to the hope that artificial creation of life may become possible in a not-too-distant future.

215T8

OPARIN, A.I.; SISAKYAN, N.M.; GEL'MAN, N.S.

Contribution to the history of plant biochemistry in the U.S.S.R. Trudy
Inst. ist. est. 4:236-266 '52.
(MLRA 6:7)
(Botanical chemistry)

OPARIN, A. I.

Decisions reached at the XIX conference of the Communist Party;
militant program for activities of Soviet Scientists. Izv. Akad.
nauk SSSR. Ser. Biol. no. 6:3-5 Nov-Dec 1952. (CLML 23:3)

1. Academician.

OPARIN, A. I., akademik

[Variations in enzyme activity in the plant cell under the influence of external factors] Izmenenie deistviia enzimov v rastitel'noi kletke pod vliyaniem vneshnikh vozdeistvii; doklad na vtorom Mezhdunarodnom biokhimicheskem kongresse, Parizh, 1952. Moskva, Izd-vo Akademii nauk SSSR, 1952. 55 p.
(Enzymes) (MLRA 9:10)

A. Oparin.

"Biology." Tr. from the Russian. p. 19. (ANALELE ROMANO-SOVIETICE. SERIA BIOLOGIE, Vol. 7, seria a II-a, no. 14, July/Sept. 1952, Bucuresti, Romania.)

SO: Monthly List of East European Accessions, L.C., Vol. 2, No. 7, July 1953, Unc1.

A. I. OPARIN, Academy Member

"From the History of the Country's Biochemistry"

Inaugural address by A. I. Oparin

Biokhimiya, Vol 17, No 2, 1952, p146

CHURCHILL, W. S., AND R. E. MITCHELL, C. I. L., PROF., 1948

1951

"Miscellaneous material" received from the U.S. State Dept. - 1951

9. Monthly List of Russian Accessions. Library of Congress, [redacted] or 1953. Uncl.

OPARIN, A. I.

China

In new China, 'Zhush i zhivot', 1951, No. 1, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March 1951, Incl. 2

OFDTM, A. T., Revd.

Russia-Social conditions

Knowledge concerning Russia - Soviet Union, etc.

9. Monthly List of Russian Accessions, Library of Congress, September 1958, Uncl.

OPARIN A. I.

USSR 600

Science - China

Flourishing of science in China Priroda 41 no. 3. 1952

11. 9. 1952

9. Monthly List of Russian Accessions, Library of Congress, July 1953. Unclassified.

2

OPARIN, A. I.

Life - Origin

Origin of life, Priroda 41 No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, July ² 1952, Unc1.

CPARTIN, A. I.; VIL'YUK, M. S.

Botany - Physiology

Problem of the relation between respiration and processes of synthesis in plants. Biol.
Akad. SSSR 85, No. 1, 1942.

16 46 p. 78

9. Monthly List of Russian Accessions, Library of Congress, December 1947, Vol. 2.

OPARIN, A.I.

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Problem of the origin of life in view of the achievements of contemporary natural science. Vest.AN SSSR 23 no.12:39-48 D '53. (MLRA 6:12)
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Oparin, A. I.

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chim.* 35, 197-9 (1953). A study has been made of fermentation
processes producing color, taste, and aroma, particularly as
affecting tea, tobacco, bread, and wine. New methods in wine production have shortened aging time.
Champagne is more foamy if yeast is added during its pro-
duction. New raw materials for industrial production of
vitamins have been developed. A cryst. prepn. of vitamin
B₁₂ has been obtained, and a process is being developed to
produce very active concentrates of vitamin A.

Ann Nicholson Hird

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Tasks of the Biological section of the Academy of Science of USSR according to resolutions of the 19th Congress of the Communist Party and according to the new Stalin's book, Economical problems of socialism in USSR. "Izv. Akad. nauk SSSR; Ser. Biol. no.2:14-33 Mar-Apr 1953.
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1. Academician, Secretary of the Division of Biological Sciences of the Academy of Sciences USSR.

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BEREZOV, T.T.; OPARIN, A.I., akademik.

Effect of B₆-avitaminosis on the in vivo conversions of L- and D-tryptophan. Dokl.AN SSSR 90 no.4:623-626 Je '59. (MLRA 6:5)

1. Akademiya Nauk SSSR (for Oparin). 2. Institut biologicheskoy i meditsinskoy khimii Akademii meditsinskikh nauk SSSR (for Berezov).
(Vitamins) (Tryptophan)

DAVYDOVA, S.Ya.; OPARIN, A.I., akademik.

Fermentative labilization of the α -hydrogen in oxyacids. Dokl.AN SSSR 90
no.4:627-630 Je '53. (MLRA 6:5)

1. Akademiya Nauk SSSR (for Oparin). (Oxyacids)

KUZIN, A.M.; MERENOVA, V.I.; OPARIN, A.I., akademik.

Assimilation of carbon through roots of plants, from organic fertilizers.
Dokl. AN SSSR 90 no.4:677-679 № '53. (MLRA 6:5)

1. Akademiya Nauk SSSR (for Oparin). 2. Institut biologicheskoy fiziki
Akademii nauk SSSR (for Kuzin, Merenova). (Roots (Botany)) (Carbon--Iso-
topes)

SUKHOV, K.S.; NIKIFOROVA, G.S.; OPARIN, A.I., akademik.

Spiral-like structure of particles of the tobacco-mosaic virus. Dokl.AN
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1. Akademiya Nauk SSSR (for Oparin). 2. Institut genetiki Akademii nauk
(for Sukhov, Nikiforova). (Mosaic disease)

RAKITIN, Yu.V.; KRYLOV, A.V.; Oparin, A.I., akademik.

Effect of vapours of the methyl ester of 2,4,5,-trichlorophenoxyacetic acid on formation of fruit in tomatoes. Dokl.AN SSSR 90 no.4:681-683 Je '53. (MLRA 6:5)

1. Akademiya Nauk SSSR (for Oparin). 2. Institut fiziologii rasteniy im. K.A. Timiryazeva, Akademiya nauk SSSR (for Rakin, Krylov).
(Tomatoes) (Methyl esters)

FEOFANOVA, N.D.; OPARIN, A.I., akademik.

Biology of the development of *Licopersicum hirsutum*. Dokl. AN SSSR 90 no. 4:685-687 Je '53.
(MLB 6:5)

1. Akademiya Nauk SSSR (for Oparin). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut rasteniyevodstva (for Feofanova). (*Licopersicum hirsutum*)

GORKIN, V.Z.; Oparin, A.I. akademik.

Chemical nature of hemolysin of inflammatory exudates (Tarasevich's hemolysin). Dokl.AN SSSR 90 no.5:837-840 Je '53. (MLRA 6:5)

1. Institut biologicheskoy i meditsinskoy khimii Akademii nauk SSSR (for Gorkin). 2. Akademiya nauk SSSR (for Oparin). (Hemolysis and Hemolysins)

OPARIK A.I.

NEYFAKH, S.A.; MEL'NIKOVA, M.P.; MOZHAYKO, P.V.; ONARIN, A.I., akademik.

Obtaining 6-phosphofructokinase in a high purified form. Dokl. AN SSSR 91
no. 3:557-560 Jl '53. (MLRA 6:7)

1. Institut eksperimental'noy meditsiny Akademii meditsinskikh nauk SSSR
(for Mel'nikov and Neyfakh). 2. Akademiya nauk SSSR (for Onarin).
(Enzymes)

PETROCHENKO, Ye.I.; OPARIN, A.I., akademik.

Chromatographic study of the glycoside part of glycoalkaloids in Solanaceae. Dokl. AN SSSR 90 no. 5:841-842a Je '53. (MLR 6:5)

1. Akademiya nauk SSSR (for Oparin). (Glycosides) (Alkaloids)
(Solanaceae)

SHKOL'NIK, R.Ya.; OPARIN, A.I.' akademik.

Determination of non-volatile organic acids in plant extracts, using the method of paper chromatography. Dokl.AN SSSR 90 no.5:847-849 Je '53.
(MLR 6:5)

1. Akademiya nauk SSSR (for Oparin). (Acids, Organic) (Chromatographic Analysis)

SOROKIN, Yu. I.; OPARIN, A.I. akademik.

Carbon balance during autotrophic nourishing of bacteria which reduce sulfates with molecular hydrogen. Dokl. Akad. Nauk SSSR 90 no. 5:897-899 Je '53.

1. Akademiya nauk SSSR (for Oparin).

(Bacteria)

SUKHOV, K.S.; NIKIPOROVA, G.S.; OPARIN, A.I., akademik.

Aggregation of the tobacco-mosaic virus in plant cells, during the early period of reproduction. Dokl. AN SSSR 90 5:901-903 Je '53. (MLRA 6:5)

1. Institut genetiki Akademii nauk SSSR (for Sukhov, Nikiforova). 2. Akademiya nauk SSSR (for Oparin). (Mosaic disease)

BORODULINA, F.Z.; KOLOBAYEVA, L.G.; OPARIN, A.I., akademik.

Evaluation of photosynthesis based on the accumulation of carbon in leaves.
Dokl.AN SSSR 90 no.5:913-916 Je '53. (MLRA 6:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (for Borodulina, Kolobayeva). 2. Akademiya nauk SSSR (for Oparin). (Photosynthesis)

VIGOROV, L.I.; OPARIN, A.I., akademik.

Intake of copper and manganese by wheat. Dokl.AN SSSR 90 no.5:917-920 Je
'531 (MLRA 6:5)

1. Akademiya nauk SSSR (for Oparin). (Plants, Effect of metals on)
(Wheat)

MKL'NIKOV, N.N.; TURETSKAYA, R.Kh.; BOKAREV, K.S.; OPARIN, A.I.

Structure and physiological activeness of certain substituted phenoxyalkylcarbonic acids towards plants. Dokl.AN SSSR 90 no.5:921-923 Je '53.
(MLRA 6:5)

1. Institut fiziologii rasteniy im. K.A. Timiryazeva Akademii nauk SSSR
(for all exc. Oparin). 2. Akademiya nauk SSSR (for Oparin).
(Plants, Effect of acids on)

MIRIMANYAN, V.A.; KHOLKINA, N.A.; OPARIN, A.I., akademik.

Physiological differences in leaves of the spring-summer shoots of citrus plants. Dokl. AN SSSR 90 no.5:925-928 Je '53. (MLRA 6:5)

1. Vsesoyuznaya selektsionnaya stantsiya vlastno-subtropicheskikh kul'tur (for Mirimanyan, Kholkina). 2. Akademiyu nauk SSSR (for Oparin).
(Citrus fruits)

PORUTSKIY, G.V.; DEMIDENKO T.T.; OPARIN, A.I. 'akademik.

Variation in the state of water in potato plants in relation to the varying intensity of growth. Dokl.AN SSSR 90 no.5:933-936 Je '53. (MLRA 6:5)

1. Kiyevskiy sel'skokhozyaystvennyy institut (for Porutskiy, Demidenko).
2. Akademiya nauk SSSR (for Oparin). (Potatoes) (Plants--Assimilation)

PETROCHENKO, Ye.I.; Oparin, A.I., akademik.

Solaninases in potato sprouts. Dokl. Akad. Nauk SSSR 90 no.5: 1091-1093 Je '53.
(MLRA 5:6)

1. Akademika nauk SSSR (for Oparin). (Potatoes) (Enzymes)

STEPANENKO, B.N.; APANAS'YEVA, Ye.M.; OPARIN, A.I., akademik.

Structure of glycogens in various species of animals. Dokl. AN SSSR
90 no.6:1095-1098 Je '53. (MLR 6:6)

1. Laboratoriya fiziologicheskoy khimii Akademii nauk SSSR. 2. Akademiya
nauk SSSR (for Oparin). (Glycogen)

DEMIDENKO, T.T.; PORUTSKIY, G.V.; OPARIN, A.I., akademik.

Change in the water content of tissues in connection with growth "interruptions" in beets. Dokl. AN SSSR 90 no.6:1167-1170 Je '53. (MLRA 6:6)

1. Kievskiy sel'skokhozyaystvennyy institut. 2. Akademiya nauk SSSR (for Oparin) (Beets and beet sugar)

PORTYANKO, V.P.; OPARIN, A.I., akademik.

Regularities in the distribution of water in plants. Dokl. AN SSSR
90 no.6:1179-1182 Je '53. (MLRA 6:6)

1. Osipenkovskiy gosudarstvennyy uchitel'skiy institut im.P.D.Osipenko.
2. Akademiya nauk SSSR (for Oparin). (Botany--Physiology)